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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
|-----------------|-------------|----------------------|---------------------|------------------|

10/552,650

10/07/2005

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76700/00014

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EXAMINER

DOAN, JENNIFER

ART UNIT

PAPER NUMBER

2874

NOTIFICATION DATE

DELIVERY MODE

03/19/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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| | | | |
|------------------------------|--------------------------------------|---|--|
| Office Action Summary | Application No. 10/552,650 | Applicant(s) GELIKONOV ET AL. | |
| | Examiner JENNIFER DOAN | Art Unit 2874 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-19,21-25 is/are rejected.
- 7) ☒ Claim(s) 3 and 20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 October 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

2. The drawings, filed on 10/07/05, are accepted.

Specification

3. Applicants' cooperation is requested in correcting any errors of which applicants may become aware in the specification.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 2, 6-12, 15-19, 23 and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Bar-Or et al. (US 5,771,327).

With respect to claim 1, Bar-Or et al. (figure 4) disclose a protector (10) for an optical fiber probe (60) designed for studying an object comprising a hollow sheath (12) having a closed distal end (14) and an open proximal end (16), the sheath allowing for an optical fiber probe to be placed inside the sheath; the closed distal end (14) of the sheath (12) being made as a protector window (18), the protector window being at least partially optically transparent (column 2, lines 59-67), and an inner surface of the protector window (18) being capable of forming a temporary adhesive contact with an end face of a distal part of the optical fiber probe under a pressure of an axial force exerted on the optical fiber probe placed inside the sheath (column 2, lines 59-67).

With respect to claims 2 and 24, Bar-Or et al. disclose the protector, wherein the protector window is manufactured from a pliable and resilient material (column 2, lines 53-57).

With respect to claim 6, Bar-Or et al. (figure 4) disclose the protector, wherein the protector further comprises a hollow handle (22), the proximal end (16) of the hollow sheath (12) being interfaced with a distal end of the hollow handle (22), the interior cavities of the sheath (12) and the handle (22) forming a common working space for placing the optical fiber probe (60) inside the working space.

With respect to claim 7, Bar-Or et al. disclose the protector, wherein the handle is further equipped with a locking means (32) for fixing the position of the optical fiber probe inside the working space (column 3, lines 10-15).

With respect to claims 8, 9 and 12, Bar-Or et al. disclose the protector, wherein the hollow sheath is made pliable, rigid and made from a material that is at least

partially optically transparent (column 2, lines 44-45).

With respect to claim 10, Bar-Or et al. disclose the protector, wherein the optical fiber probe is part of a spectral imaging device (column 1, line 14-19).

With respect to claim 11, Bar-Or et al. disclose the protector, wherein the optical fiber probe is part of a device for optical coherence tomography (column 1, lines 14-25).

With respect to claims 15 and 16, Bar-Or et al. disclose the protector, wherein the object being studied is a biological tissue and wherein the object being studied is a biological tissue of a living body (column 1, lines 34-39).

With respect to claim 17, Bar-Or et al. (figure 4) disclose a protector (10) for an optical fiber probe (60) designed for studying an object comprising a hollow sheath (12) having a closed distal end (14) and an open proximal end, the sheath allowing for an optical fiber probe to be placed inside the sheath; the closed distal end (14) of the sheath (12) being made as a protector window (18), the protector window being at least partially optically transparent (column 2, lines 47-57), the protector window having an inner surface and an outer surface and being configured as at least a bilayer structure (14, 18), and the inner surface of the protector window (18) being capable of forming a temporary adhesive contact with an end face of a distal part of the optical fiber probe under a pressure of an axial force exerted on the optical fiber probe placed inside the sheath (column 2, lines 59-67).

With respect to claims 18 and 19, Bar-Or et al. disclose the protector, wherein the layer, one of whose surfaces makes the inner and outer surfaces of the protector window, are manufactured from a pliable and resilient material (column 2, lines 53-57).

With respect to claim 23, Bar-Or et al. (figure 4) disclose a protector for an optical fiber probe designed for studying an object comprising a hollow sheath (12) having a closed distal end (14) and an open proximal end (16), the sheath allowing for an optical fiber probe to be placed inside the sheath; the closed distal end (14) of the sheath (12) being made as a protector window (18), the protector window being at least partially optically transparent (column 2, lines 47-57), the protector window having an inner surface and an outer surface (see figure 4); the inner surface of the protector window (18) being capable of forming a temporary adhesive contact with an end face of a distal part of the optical fiber probe under a pressure of an axial force exerted on the optical fiber probe placed inside the sheath (column 2, lines 59-67), and the outer surface of the protector window (18) being capable of forming a temporary adhesive contact with the object being studied under the pressure of the axial force exerted on the optical fiber probe placed inside the sheath (column 3, lines 2-9).

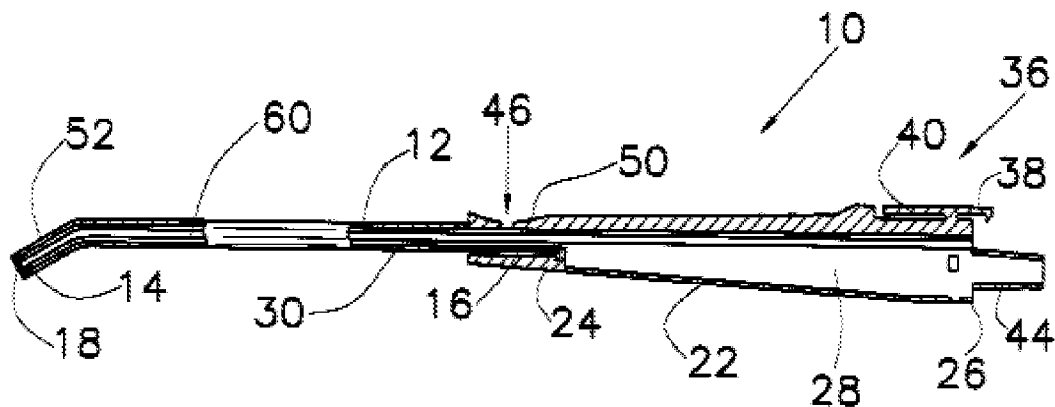


Fig. 4

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 4, 5, 13, 14, 21, 22 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bar-Or et al. (as cited above).

With respect to claims 4, 5, 13, 14, 21, 22 and 25, Bar-Or et al. substantially the claimed invention except for the protector window is manufactured from a cured optical gel and made as a pliable membrane; and the protector is made reusable and disposable.

However, the protector window being manufactured from a cured optical gel and made as a pliable membrane; and the protector being made reusable and disposable are considered to be obvious. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to manufacture the protector and the protector window of Bar-Or et al.'s device by the material as claimed for the purpose of obtaining good support and protection for the optical fiber probe. It is also noted that it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Allowable Subject Matter

9. Claims 3 and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art fails to disclose or suggest the protector, wherein the refractive index of the material of the protector window at the operating wavelength is defined by the following relation:

$$N_a \cong (N_b * N_c)^{1/2}, \text{ where}$$

N_a is the refractive index of the material of the protector window;

N_b is the refractive index of the object being studied;

N_c is the refractive index of the material of the distal part of the optical fiber probe as recited in claim 3; and wherein the refractive indexes of the materials of the layers configuring the protector window, the refractive index of the object being studied, and the refractive index of the material of the distal part of the optical fiber probe have substantially equal values at the operating wavelength as recited in claim 20.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer Doan whose telephone number is (571) 272-2346. The examiner can normally be reached on Monday to Thursday from 6:00am to 3:30pm, second Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on (571) 272-2344. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jennifer Doan/
Primary Examiner, Art Unit 2874